

U.S. Application No. 10/696,464

Attorney Docket No. P-142-US1

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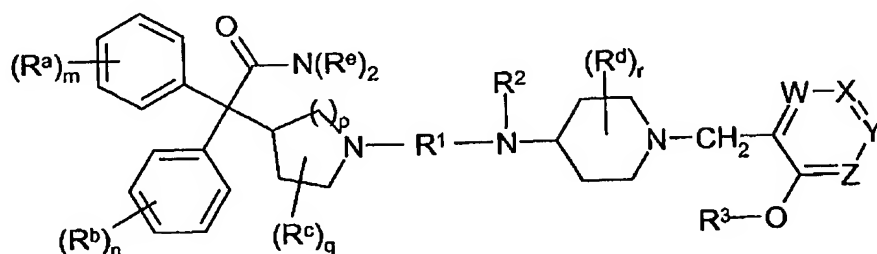
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**II. AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (Original) A compound of formula I:

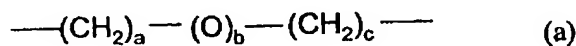


I

wherein

$W$ ,  $X$ ,  $Y$  and  $Z$  are independently selected from the group consisting of  $CH$ ,  $CR^4$ ,  $N$  and  $N-O$ ; provided that at least one and no more than two of  $W$ ,  $X$ ,  $Y$  and  $Z$  are  $N$  or  $N-O$ ;

$R^1$  is a group of formula (a):



wherein each  $-CH_2-$  group in formula (a) and the  $-CH_2-$  group between the piperidine nitrogen atom and the ring containing  $W$ ,  $X$ ,  $Y$  and  $Z$  in formula I is optionally substituted with 1 or 2 substituents independently selected from the group consisting of  $C_{1-2}$  alkyl and fluoro; wherein each alkyl group is optionally substituted with 1 to 3 fluoro substituents;

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$R^2$  is selected from the group consisting of hydrogen,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $C_{3-6}$  cycloalkyl,  $-CH_2-R^5$  and  $-(CH_2)_x-R^6$ ; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $R^3$  is independently selected from the group consisting of hydrogen,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $C_{3-6}$  cycloalkyl,  $-CH_2-R^7$  and  $-(CH_2)_y-R^8$ ; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $R^4$  is independently selected from the group consisting of  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $C_{3-6}$  cycloalkyl,  $-OR^3$  and halo; or two adjacent  $R^4$  groups are joined to form  $C_{3-6}$  alkylene,  $-O-(C_{2-4}$  alkylene)-,  $-O-(C_{1-4}$  alkylene)-O-,  $-(O)C-CH=CH-$  or  $-CH=CH-C(O)-$ ; or when Z is  $CR^4$ ,  $-OR^3$  and  $R^4$  are joined to form  $-O-(C_{2-5}$  alkylene)- or  $-O-(C_{1-5}$  alkylene)-O-; wherein each alkyl, alkylene, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $R^5$  and  $R^7$  is independently selected from the group consisting of  $C_{3-5}$  cycloalkyl,  $C_{6-10}$  aryl,  $-C(O)(C_{6-10}$  aryl),  $C_{2-9}$  heteroaryl,  $-C(O)(C_{2-9}$  heteroaryl) and  $C_{3-6}$  heterocyclic; wherein the cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents; and the aryl, heteroaryl and heterocyclic groups are optionally substituted with 1 to 3 substituents independently selected from  $R^k$  and the aryl and heteroaryl groups are optionally further substituted with a phenyl group, where the phenyl group is optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

each  $R^6$  and  $R^8$  is independently selected from the group consisting of  $-OH$ ,  $-OR^9$ ,  $-SR^9$ ,  $-S(O)R^9$ ,  $-S(O)_2R^9$ ,  $-C(O)R^9$ ,  $C_{3-5}$  cycloalkyl,  $C_{6-10}$  aryl,  $C_{2-9}$  heteroaryl and  $C_{3-6}$  heterocyclic; wherein the cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents; and the aryl, heteroaryl and heterocyclic groups are optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

each  $R^9$  is independently selected from the group consisting of  $C_{1-4}$  alkyl,  $C_{3-5}$  cycloalkyl,  $C_{6-10}$  aryl and  $C_{2-9}$  heteroaryl; wherein the alkyl and cycloalkyl groups are

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optionally substituted with 1 to 5 fluoro substituents; and the aryl and heteroaryl groups are optionally substituted with 1 to 3 substituents independently selected from R<sup>k</sup>;

each R<sup>a</sup> and R<sup>b</sup> is independently selected from the group consisting of C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>2-4</sub> alkynyl, C<sub>3-6</sub> cycloalkyl, cyano, halo, -OR<sup>f</sup>, -SR<sup>f</sup>, -S(O)R<sup>f</sup>, -S(O)<sub>2</sub>R<sup>f</sup> and -NR<sup>e</sup>R<sup>h</sup>; or two adjacent R<sup>a</sup> groups or two adjacent R<sup>b</sup> groups are joined to form C<sub>3-6</sub> alkylene, -(C<sub>2-4</sub> alkylene)-O- or -O-(C<sub>1-4</sub> alkylene)-O-; wherein each alkyl, alkylene, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each R<sup>c</sup> and R<sup>d</sup> is independently selected from the group consisting of C<sub>1-4</sub> alkyl and fluoro; wherein each alkyl group is optionally substituted with 1 to 5 fluoro substituents;

each R<sup>e</sup> is independently selected from the group consisting of hydrogen, C<sub>1-6</sub> alkyl, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> alkynyl, C<sub>3-6</sub> cycloalkyl, C<sub>6-10</sub> aryl, C<sub>2-9</sub> heteroaryl, C<sub>3-6</sub> heterocyclic, -CH<sub>2</sub>-R<sup>i</sup> and -CH<sub>2</sub>CH<sub>2</sub>-R<sup>i</sup>; or both R<sup>e</sup> groups are joined together with the nitrogen atom to which they are attached to form C<sub>3-6</sub> heterocyclic; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents; and each aryl, heteroaryl and heterocyclic group is optionally substituted with 1 to 3 substituents independently selected from R<sup>k</sup>;

each R<sup>f</sup> is independently selected from the group consisting hydrogen, C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>2-4</sub> alkynyl and C<sub>3-6</sub> cycloalkyl; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each R<sup>g</sup> and R<sup>h</sup> is independently selected from the group consisting of hydrogen, C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>2-4</sub> alkynyl and C<sub>3-6</sub> cycloalkyl; or R<sup>g</sup> and R<sup>h</sup> are joined together with the nitrogen atom to which they are attached to form C<sub>3-6</sub> heterocyclic; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents, and the heterocyclic group is optionally substituted with 1 to 3 substituents independently selected from C<sub>1-4</sub> alkyl and fluoro;

each R<sup>i</sup> is independently selected from the group consisting of C<sub>3-6</sub> cycloalkyl, C<sub>6-10</sub> aryl, C<sub>2-9</sub> heteroaryl and C<sub>3-6</sub> heterocyclic; wherein aryl, cycloalkyl, heteroaryl and

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heterocyclic group is optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

each  $R^j$  is independently selected from the group consisting of  $C_{3-6}$  cycloalkyl,  $C_{6-10}$  aryl,  $C_{2-9}$  heteroaryl,  $C_{3-6}$  heterocyclic,  $-OH$ ,  $-O(C_{1-6}$  alkyl),  $-O(C_{3-6}$  cycloalkyl),  $-O(C_{6-10}$  aryl),  $-O(C_{2-9}$  heteroaryl),  $-S(C_{1-6}$  alkyl),  $-S(O)(C_{1-6}$  alkyl),  $-S(O)_2(C_{1-6}$  alkyl),  $-S(C_{3-6}$  cycloalkyl),  $-S(O)(C_{3-6}$  cycloalkyl),  $-S(O)_2(C_{3-6}$  cycloalkyl),  $-S(C_{6-10}$  aryl),  $-S(O)(C_{6-10}$  aryl),  $-S(O)_2(C_{6-10}$  aryl),  $-S(C_{2-9}$  heteroaryl),  $-S(O)(C_{2-9}$  heteroaryl) and  $-S(O)_2(C_{2-9}$  heteroaryl); wherein each alkyl group is optionally substituted with 1 to 5 fluoro substituents; and each aryl, cycloalkyl, heteroaryl and heterocyclic group is optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

each  $R^k$  is independently selected from the group consisting of  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl,  $C_{2-4}$  alkynyl, cyano, halo,  $-OR^f$ ,  $-SR^f$ ,  $-S(O)R^f$ ,  $-S(O)_2R^f$  and  $-NR^gR^h$ ; or two adjacent  $R^k$  groups are joined to form  $C_{3-6}$  alkylene,  $-(C_{2-4}$  alkylene)-O- or  $-O-(C_{1-4}$  alkylene)-O-; wherein each alkyl, alkylene, alkenyl and alkynyl group is optionally substituted with 1 to 5 fluoro substituents;

$a$  is an integer from 2 to 7;

$b$  is 0 or 1;

$c$  is an integer from 2 to 7; provided that  $a + b + c$  equals 7, 8 or 9;

$m$  is an integer from 0 to 3;

$n$  is an integer from 0 to 3;

$p$  is 1 or 2;

$q$  is an integer from 0 to 4;

$r$  is an integer from 0 to 4;

$x$  is an integer from 2 to 4;

$y$  is an integer from 2 to 4;

or a pharmaceutically-acceptable salt or solvate or stereoisomer thereof.

2. (Original) The compound according to Claim 1, wherein  $R^1$  is selected from the group consisting of  $-(CH_2)_7-$ ,  $-(CH_2)_8-$ ,  $-(CH_2)_9-$ ,  $-(CH_2)_2-O-(CH_2)_4-$ ,

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$-(CH_2)_2-O-(CH_2)_5-$ ,  $-(CH_2)_2-O-(CH_2)_6-$ ,  $-(CH_2)_3-O-(CH_2)_3-$ ,  $-(CH_2)_3-O-(CH_2)_4-$ ,  
 $-(CH_2)_3-O-(CH_2)_5-$ ,  $-(CH_2)_4-O-(CH_2)_2-$ ,  $-(CH_2)_4-O-(CH_2)_3-$ ,  
 $-(CH_2)_4-O-(CH_2)_4-$ ,  $-(CH_2)_5-O-(CH_2)_2-$ ,  $-(CH_2)_5-O-(CH_2)_3-$  and  
 $-(CH_2)_6-O-(CH_2)_2-$ .

3. (Original) The compound according to Claim 2, wherein  $R^1$  is  $-(CH_2)_7-$ ,  
 $-(CH_2)_8-$ ,  $-(CH_2)_9-$ ,  $-(CH_2)_3-O-(CH_2)_3-$  or  $-(CH_2)_4-O-(CH_2)_4-$ .

4. (Original) The compound according to Claim 3, wherein  $R^1$  is  $-(CH_2)_7-$ .

5. (Original) The compound according to Claim 1, wherein  $R^2$  is  $C_{1-4}$  alkyl;  
 wherein the alkyl group is optionally substituted with 1 to 3 fluoro substituents.

6. (Original) The compound according to Claim 5, wherein  $R^2$  is selected  
 from the group consisting of methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl and isobutyl.

7. (Original) The compound according to Claim 1, wherein  $R^2$  is  $-CH_2-R^5$ .

8. (Original) The compound according to Claim 7, wherein  $R^2$  is selected  
 from the group consisting of:

(a)  $-CH_2-(C_{3-5} \text{ cycloalkyl})$ ; wherein the cycloalkyl group is optionally  
 substituted with 1 to 3 fluoro substituents;

(b)  $-CH_2-(\text{phenyl})$ , wherein the phenyl group is optionally substituted with 1  
 to 3 substituents independently selected from  $R^k$ ;

(c)  $-CH_2-(\text{naphthyl})$ ; wherein the naphthyl group is optionally substituted  
 with 1 to 3 substituents independently selected from  $R^k$ ;

(d)  $-CH_2-(\text{biphenyl})$ , wherein each phenyl ring of the biphenyl group is  
 optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

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(e)  $-\text{CH}_2-(\text{pyridyl})$ ; wherein the pyridyl group is optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ ; and

(f)  $-\text{CH}_2\text{C}(\text{O})-(\text{phenyl})$ , wherein the phenyl ring of the phenacyl group is optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ .

9. (Original) The compound according to Claim 8, wherein  $\text{R}^2$  is selected from the group consisting of cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, benzyl, 4-cyanobenzyl, 4-methylbenzyl, 4-trifluoromethoxybenzyl, 4-difluoromethoxybenzyl, 4-thiomethoxybenzyl, 4-methanesulfonylbenzyl, 4-*tert*-butylbenzyl, 4-phenylbenzyl, pyridyl-2-ylmethyl, pyrid-3-ylmethyl, naphth-2-ylmethyl, 3-cyanophenacyl, and 3,4-ethylenedioxyphenacyl.

10. (Original) The compound according to Claim 1, wherein  $\text{R}^2$  is  $-(\text{CH}_2)_x-\text{R}^6$ , wherein  $x$  is 2, 3 or 4.

11. (Original) The compound according to Claim 10, wherein  $\text{R}^2$  is selected from the group consisting of:

(a)  $-(\text{CH}_2)_x-\text{OH}$ ;

(b)  $-(\text{CH}_2)_x-\text{O}(\text{C}_{1-4} \text{ alkyl})$ ; wherein the alkyl group is optionally substituted with 1 to 3 fluoro substituents;

(c)  $-(\text{CH}_2)_x-\text{S}(\text{C}_{1-4} \text{ alkyl})$ ,  $-(\text{CH}_2)_x-\text{S}(\text{O})(\text{C}_{1-4} \text{ alkyl})$ , or  $-(\text{CH}_2)_x-\text{S}(\text{O})_2(\text{C}_{1-4} \text{ alkyl})$ ; wherein the alkyl group is optionally substituted with 1 to 3 fluoro substituents;

(d)  $-(\text{CH}_2)_x-(\text{phenyl})$ , wherein the phenyl group is optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ ;

(e)  $-(\text{CH}_2)_x-(\text{O-phenyl})$ , wherein the phenyl group is optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ ;

(f)  $-(\text{CH}_2)_x-(\text{naphthyl})$ , wherein the naphthyl group is optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ ; and

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(g)  $-(CH_2)_x-(indolyl)$ , wherein the indolyl group is optionally substituted with 1 to 3 substituents independently selected from  $R^k$ .

12. (Original) The compound according to Claim 11, wherein  $R^2$  is selected from the group consisting of 2-hydroxyethyl, 2-methoxyethyl, 2-(methylthio)ethyl, 2-ethoxyethyl, 2-(ethylthio)ethyl, 2-(2,2,2-trifluoroethoxy)ethyl, 2-phenethyl, 2-(naphth-1-yl)ethyl, 2-(indol-3-yl)ethyl, 3-hydroxypropyl, 3-methoxypropyl, 3-ethoxypropyl, 3-phenylpropyl and 3-phenoxypropyl.

13. (Original) The compound according to Claim 1, wherein  $R^2$  is ethyl, *n*-propyl, isopropyl, cyclopropylmethyl or 2-hydroxyethyl.

14. (Original) The compound according to Claim 1, wherein each  $R^3$  is independently selected from the group consisting of hydrogen,  $C_{1-4}$  alkyl, cyclopropylmethyl and 2-hydroxyethyl; wherein each alkyl group is optionally substituted with 1 to 5 fluoro substituents.

15. (Original) The compound according to Claim 14, wherein each  $R^3$  is independently selected from the group consisting of hydrogen, methyl, ethyl, *n*-propyl, isopropyl, difluoromethyl, trifluoromethyl, 2,2,2-trifluoroethyl, 1,3-difluoroprop-2-yl, 1,1,3-trifluoroprop-2-yl, and 1,1,3,3-tetrafluoroprop-2-yl.

16. (Original) The compound according to Claim 1, wherein  $R^4$  is selected from the group consisting of  $C_{1-4}$  alkyl,  $-OR^3$  and halo; wherein the alkyl group is optionally substituted with 1 to 5 fluoro substituents.

17. (Original) The compound according to Claim 16, wherein  $R^4$  is methyl,  $-OR^3$ , fluoro or chloro.

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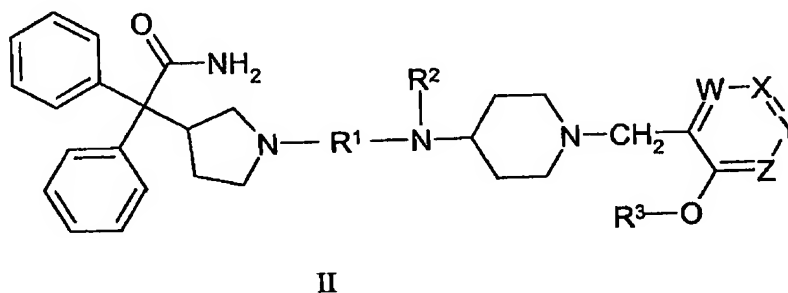
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18. (Original) The compound according to Claim 1, wherein *W*, *X*, *Y* and *Z* are defined as follows:

- (a) *W* is N; *X* is CH; *Y* is CH; and *Z* is CH;
- (b) *W* is CH or CR<sup>4</sup>; *X* is N; *Y* is CH and *Z* is CH;
- (c) *W* is CH or CR<sup>4</sup>; *X* is CH; *Y* is N; and *Z* is CH;
- (d) *W* is CH or CR<sup>4</sup>; *X* is CH; *Y* is CH; and *Z* is N; or
- (e) *W* is CH; *X* is N; *Y* is CH and *Z* is CH.

19. (Original) The compound according to Claim 18, wherein *W* is CH; *X* is N; *Y* is CH and *Z* is CH.

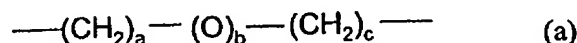
20. (Original) A compound of formula II:



wherein

*W*, *X*, *Y* and *Z* are independently selected from the group consisting of CH, CR<sup>4</sup>, N and N-O; provided that at least one and no more than two of *W*, *X*, *Y* and *Z* are N or N-O;

*R*<sup>1</sup> is a group of formula (a):



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wherein each  $-\text{CH}_2-$  group in formula (a) and the  $-\text{CH}_2-$  group between the piperidine nitrogen atom and the ring containing  $W, X, Y$  and  $Z$  in formula II is optionally substituted with 1 or 2 substituents independently selected from the group consisting of  $\text{C}_{1-2}$  alkyl and fluoro; wherein each alkyl group is optionally substituted with 1 to 3 fluoro substituents;

$\text{R}^2$  is selected from the group consisting of hydrogen,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  alkynyl,  $\text{C}_{3-6}$  cycloalkyl,  $-\text{CH}_2-\text{R}^5$  and  $-(\text{CH}_2)_x-\text{R}^6$ ; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $\text{R}^3$  is independently selected from the group consisting of hydrogen,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  alkynyl,  $\text{C}_{3-6}$  cycloalkyl,  $-\text{CH}_2-\text{R}^7$  and  $-(\text{CH}_2)_y-\text{R}^8$ ; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $\text{R}^4$  is independently selected from the group consisting of  $\text{C}_{1-6}$  alkyl,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  alkynyl,  $\text{C}_{3-6}$  cycloalkyl,  $-\text{OR}^3$  and halo; or two adjacent  $\text{R}^4$  groups are joined to form  $\text{C}_{3-6}$  alkylene,  $-\text{O}-(\text{C}_{2-4}$  alkylene)-,  $-\text{O}-(\text{C}_{1-4}$  alkylene)-O-,  $-(\text{O})\text{C}=\text{CH}=\text{CH}-$  or  $-\text{CH}=\text{CH}-\text{C}(\text{O})-$ ; or when  $Z$  is  $\text{CR}^4$ ,  $-\text{OR}^3$  and  $\text{R}^4$  are joined to form  $-\text{O}-(\text{C}_{2-5}$  alkylene)- or  $-\text{O}-(\text{C}_{1-5}$  alkylene)-O-; wherein each alkyl, alkylene, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $\text{R}^5$  and  $\text{R}^7$  is independently selected from the group consisting of  $\text{C}_{3-5}$  cycloalkyl,  $\text{C}_{6-10}$  aryl,  $-\text{C}(\text{O})(\text{C}_{6-10}$  aryl),  $\text{C}_{2-9}$  heteroaryl,  $-\text{C}(\text{O})(\text{C}_{2-9}$  heteroaryl) and  $\text{C}_{3-6}$  heterocyclic; wherein the cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents; and the aryl, heteroaryl and heterocyclic groups are optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$  and the aryl and heteroaryl groups are optionally further substituted with a phenyl group, where the phenyl group is optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ ;

each  $\text{R}^6$  and  $\text{R}^8$  is independently selected from the group consisting of  $-\text{OH}$ ,  $-\text{OR}^9$ ,  $-\text{SR}^9$ ,  $-\text{S}(\text{O})\text{R}^9$ ,  $-\text{S}(\text{O})_2\text{R}^9$ ,  $-\text{C}(\text{O})\text{R}^9$ ,  $\text{C}_{3-5}$  cycloalkyl,  $\text{C}_{6-10}$  aryl,  $\text{C}_{2-9}$  heteroaryl and  $\text{C}_{3-6}$  heterocyclic; wherein the cycloalkyl group is optionally substituted with 1 to 5

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fluoro substituents; and the aryl, heteroaryl and heterocyclic groups are optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

each  $R^9$  is independently selected from the group consisting of  $C_{1-4}$  alkyl,  $C_{3-5}$  cycloalkyl,  $C_{6-10}$  aryl and  $C_{2-9}$  heteroaryl; wherein the alkyl and cycloalkyl groups are optionally substituted with 1 to 5 fluoro substituents; and the aryl and heteroaryl groups are optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

each  $R^f$  is independently selected from the group consisting hydrogen,  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl,  $C_{2-4}$  alkynyl and  $C_{3-6}$  cycloalkyl; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $R^g$  and  $R^h$  is independently selected from the group consisting of hydrogen,  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl,  $C_{2-4}$  alkynyl and  $C_{3-6}$  cycloalkyl; or  $R^g$  and  $R^h$  are joined together with the nitrogen atom to which they are attached to form  $C_{3-6}$  heterocyclic; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents, and the heterocyclic group is optionally substituted with 1 to 3 substituents independently selected from  $C_{1-4}$  alkyl and fluoro;

each  $R^k$  is independently selected from the group consisting of  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl,  $C_{2-4}$  alkynyl, cyano, halo,  $-OR^f$ ,  $-SR^f$ ,  $-S(O)R^f$ ,  $-S(O)_2R^f$  and  $-NR^gR^h$ ; or two adjacent  $R^k$  groups are joined to form  $C_{3-6}$  alkylene,  $-(C_{2-4} \text{ alkylene})-O-$  or  $-O-(C_{1-4} \text{ alkylene})-O-$ ; wherein each alkyl, alkylene, alkenyl and alkynyl group is optionally substituted with 1 to 5 fluoro substituents;

$a$  is an integer from 2 to 7;

$b$  is 0 or 1;

$c$  is an integer from 2 to 7; provided that  $a + b + c$  equals 7, 8 or 9;

$x$  is an integer from 2 to 4;

$y$  is an integer from 2 to 4;

or a pharmaceutically-acceptable salt or solvate or stereoisomer thereof.

21. (Original) The compound according to Claim 20, wherein  $R^1$  is  $-(CH_2)_7-$ ,  $-(CH_2)_8-$ ,  $-(CH_2)_9-$ ,  $-(CH_2)_3-O-(CH_2)_3-$  or  $-(CH_2)_4-O-(CH_2)_4-$ .

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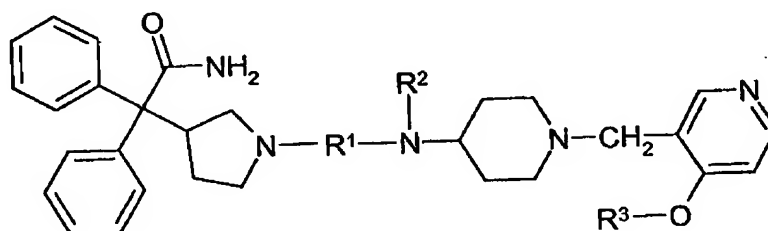
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22. (Original) The compound according to Claim 21, wherein  $R^2$  is  $C_{1-4}$  alkyl, wherein the alkyl group is optionally substituted with 1 to 3 fluoro substituents.

23. (Original) The compound according to Claim 22, wherein each  $R^3$  is independently selected from the group consisting of hydrogen,  $C_{1-4}$  alkyl, cyclopropylmethyl and 2-hydroxyethyl; wherein each alkyl group is optionally substituted with 1 to 5 fluoro substituents.

24. (Original) The compound according to Claim 23, wherein  $R^1$  is  $-(CH_2)_7-$ ;  $R^2$  is selected from the group consisting of methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl and isobutyl; and each  $R^3$  is independently selected from the group consisting of hydrogen, methyl, ethyl, *n*-propyl, isopropyl, difluoromethyl, trifluoromethyl, 2,2,2-trifluoroethyl, 1,3-difluoroprop-2-yl, 1,1,3-trifluoroprop-2-yl, and 1,1,3,3-tetrafluoroprop-2-yl.

25. (Original) A compound of formula III:



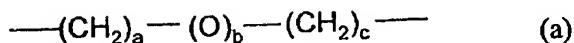
III

wherein

$R^1$  is a group of formula (a):

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wherein each  $\text{---CH}_2\text{---}$  group in formula (a) and the  $\text{---CH}_2\text{---}$  group between the piperidine nitrogen atom and the pyridine ring in formula III is optionally substituted with 1 or 2 substituents independently selected from the group consisting of  $\text{C}_{1-2}$  alkyl and fluoro; wherein each alkyl group is optionally substituted with 1 to 3 fluoro substituents;

$\text{R}^2$  is selected from the group consisting of hydrogen,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  alkynyl,  $\text{C}_{3-6}$  cycloalkyl,  $\text{---CH}_2\text{---R}^5$  and  $\text{---}(\text{CH}_2)_x\text{---R}^6$ ; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $\text{R}^3$  is independently selected from the group consisting of hydrogen,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  alkynyl,  $\text{C}_{3-6}$  cycloalkyl,  $\text{---CH}_2\text{---R}^7$  and  $\text{---}(\text{CH}_2)_y\text{---R}^8$ ; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $\text{R}^5$  and  $\text{R}^7$  is independently selected from the group consisting of  $\text{C}_{3-5}$  cycloalkyl,  $\text{C}_{6-10}$  aryl,  $\text{---C(O)---}(\text{C}_{6-10} \text{ aryl})$ ,  $\text{C}_{2-9}$  heteroaryl,  $\text{---C(O)---}(\text{C}_{2-9} \text{ heteroaryl})$  and  $\text{C}_{3-6}$  heterocyclic; wherein the cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents; and the aryl, heteroaryl and heterocyclic groups are optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$  and the aryl and heteroaryl groups are optionally further substituted with a phenyl group, where the phenyl group is optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ ;

each  $\text{R}^6$  and  $\text{R}^8$  is independently selected from the group consisting of  $\text{---OH}$ ,  $\text{---OR}^9$ ,  $\text{---SR}^9$ ,  $\text{---S(O)R}^9$ ,  $\text{---S(O)}_2\text{R}^9$ ,  $\text{---C(O)R}^9$ ,  $\text{C}_{3-5}$  cycloalkyl,  $\text{C}_{6-10}$  aryl,  $\text{C}_{2-9}$  heteroaryl and  $\text{C}_{3-6}$  heterocyclic; wherein the cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents; and the aryl, heteroaryl and heterocyclic groups are optionally substituted with 1 to 3 substituents independently selected from  $\text{R}^k$ ;

each  $\text{R}^9$  is independently selected from the group consisting of  $\text{C}_{1-4}$  alkyl,  $\text{C}_{3-5}$  cycloalkyl,  $\text{C}_{6-10}$  aryl and  $\text{C}_{2-9}$  heteroaryl; wherein the alkyl and cycloalkyl groups are

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optionally substituted with 1 to 5 fluoro substituents; and the aryl and heteroaryl groups are optionally substituted with 1 to 3 substituents independently selected from  $R^k$ ;

each  $R^f$  is independently selected from the group consisting hydrogen,  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl,  $C_{2-4}$  alkynyl and  $C_{3-6}$  cycloalkyl; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents;

each  $R^g$  and  $R^h$  is independently selected from the group consisting of hydrogen,  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl,  $C_{2-4}$  alkynyl and  $C_{3-6}$  cycloalkyl; or  $R^g$  and  $R^h$  are joined together with the nitrogen atom to which they are attached to form  $C_{3-6}$  heterocyclic; wherein each alkyl, alkenyl, alkynyl and cycloalkyl group is optionally substituted with 1 to 5 fluoro substituents, and the heterocyclic group is optionally substituted with 1 to 3 substituents independently selected from  $C_{1-4}$  alkyl and fluoro;

each  $R^k$  is independently selected from the group consisting of  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl,  $C_{2-4}$  alkynyl, cyano, halo,  $-OR^f$ ,  $-SR^f$ ,  $-S(O)R^f$ ,  $-S(O)_2R^f$  and  $-NR^gR^h$ ; or two adjacent  $R^k$  groups are joined to form  $C_{3-6}$  alkylene,  $-(C_{2-4} \text{ alkylene})-O-$  or  $-O-(C_{1-4} \text{ alkylene})-O-$ ; wherein each alkyl, alkylene, alkenyl and alkynyl group is optionally substituted with 1 to 5 fluoro substituents;

$a$  is an integer from 2 to 7;

$b$  is 0 or 1;

$c$  is an integer from 2 to 7; provided that  $a + b + c$  equals 7, 8 or 9;

$x$  is an integer from 2 to 4;

$y$  is an integer from 2 to 4;

or a pharmaceutically-acceptable salt or solvate or stereoisomer thereof.

26. (Original) The compound according to Claim 25, wherein  $R^1$  is  $-(CH_2)_7-$ ,  $-(CH_2)_8-$ ,  $-(CH_2)_9-$ ,  $-(CH_2)_3-O-(CH_2)_3-$  or  $-(CH_2)_4-O-(CH_2)_4-$ .

27. (Original) The compound according to Claim 26, wherein  $R^2$  is  $C_{1-4}$  alkyl; wherein the alkyl group is optionally substituted with 1 to 3 fluoro substituents.

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28. (Original) The compound according to Claim 27, wherein each R<sup>3</sup> is independently selected from the group consisting of hydrogen, C<sub>1-4</sub> alkyl, cyclopropylmethyl and 2-hydroxyethyl; wherein each alkyl group is optionally substituted with 1 to 5 fluoro substituents.

29. (Original) The compound according to Claim 28, wherein

R<sup>1</sup> is -(CH<sub>2</sub>)<sub>7</sub>-;

R<sup>2</sup> is selected from the group consisting of methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl and isobutyl; and

R<sup>3</sup> is selected from the group consisting of hydrogen, methyl, ethyl, *n*-propyl, isopropyl, difluoromethyl, trifluoromethyl, 2,2,2-trifluoroethyl, 1,3-difluoroprop-2-yl, 1,1,3-trifluoroprop-2-yl, and 1,1,3,3-tetrafluoroprop-2-yl.

30. (Original) A compound selected from the group consisting of:

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxahept-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxahept-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(ethyl)amino}-1-(2-methoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(ethyl)amino}-1-(3-methoxypyrid-2-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxahept-1-yl]-*N*-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

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- 4- {N-[8-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]oct-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[9-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]non-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[7-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxahept-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[8-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxaoct-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[9-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxanon-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[8-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxaoct-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[9-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxanon-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[7-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxahept-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[8-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxaoct-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[9-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxanon-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[8-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxaoct-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[9-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxanon-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[9-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-7-oxanon-1-yl]-N-(ethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[7-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-N-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4- {N-[8-(3-(S)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]oct-1-yl]-N-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

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- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]non-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxahept-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxaoct-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxanon-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxahept-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxaoct-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxanon-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxahept-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxaoct-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxanon-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxaoct-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxanon-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-7-oxanon-1-yl]-*N*-(prop-1-yl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(isopropyl)amino}-1-(4-*n*-propoxypyrid-3-ylmethyl)piperidine;

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- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(4-isopropoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(4-cyclopropyl-methoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-{4-(2-hydroxyethoxy)pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(4-isobutoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(2,4-dimethoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(2-fluoro-4-methoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(2-chloro-4-methoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(2-methyl-4-methoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{oct-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(4-methoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[9-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{non-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(4-methoxy-pyrid-3-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(3-methoxy-pyrid-2-ylmethyl)piperidine;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{oct-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(3-methoxy-pyrid-2-ylmethyl)piperidine;
- 4- $\{N-[9-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{non-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(3-methoxy-pyrid-2-ylmethyl)piperidine;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{hep-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(3-methoxy-pyrid-4-ylmethyl)piperidine;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl})\text{oct-1-yl}]-N\text{-(isopropyl)amino}\}$ -1-(3-methoxy-pyrid-4-ylmethyl)piperidine;

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- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]non-1-yl]-*N*-(isopropyl)amino}-1-(3-methoxypyrid-4-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(isopropyl)amino}-1-(2-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]oct-1-yl]-*N*-(isopropyl)amino}-1-(2-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]non-1-yl]-*N*-(isopropyl)amino}-1-(2-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxahept-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxaoct-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxanon-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxahept-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxanon-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxaoct-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxanon-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxaoct-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxanon-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-7-oxanon-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

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- 4-*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]oct-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]non-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxahept-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxaoct-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-3-oxanon-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxahept-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxaoct-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-4-oxanon-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxahept-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxaoct-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-5-oxanon-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[8-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxaoct-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-6-oxanon-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-7-oxanon-1-yl]-*N*-(cyclopropylmethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

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- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}] \text{hept-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}] \text{oct-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[9-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}] \text{non-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-3\text{-oxahept-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-3\text{-oxaoct-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[9-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-3\text{-oxanon-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-4\text{-oxahept-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-4\text{-oxaoct-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[9-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-4\text{-oxanon-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[7-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-5\text{-oxahept-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-5\text{-oxaoct-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[9-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-5\text{-oxanon-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[8-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-6\text{-oxaoct-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;
- 4- $\{N-[9-(3-(S)-1\text{-carbamoyl-1,1-diphenylmethyl})\text{pyrrolidin-1-yl}]-6\text{-oxanon-1-yl}\}-N-(2\text{-hydroxyethyl})\text{amino}\}-1-(4\text{-methoxypyrid-3-ylmethyl})\text{piperidine}$ ;

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- 4-{*N*-[9-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]-7-oxanon-1-yl]-*N*-(2-hydroxyethyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-*tert*-butoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-hydroxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-ethoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-trifluoromethoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-difluoromethoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxy-2-trifluoromethoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(2-difluoromethoxy-4-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(2-methoxy-4-trifluoromethoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-difluoromethoxy-2-methoxypyrid-3-ylmethyl)piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-{2,4-di(trifluoromethoxy)pyrid-3-ylmethyl}piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-{2,4-di(difluoromethoxy)pyrid-3-ylmethyl}piperidine;
- 4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(2-ethoxy-4-trifluoromethoxypyrid-3-ylmethyl)piperidine;

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4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(2-ethoxy-4-difluoromethoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(2,4-diethoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-(*N*-methylcarbamoyl)-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-(*N,N*-dimethylcarbamoyl)-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-hydroxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-(*N,N*-diethylcarbamoyl)-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-hydroxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-(piperidin-1-ylcarbonyl)-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-hydroxypyrid-3-ylmethyl)piperidine;

4-{*N*-[7-(3-(*S*)-1-(morpholin-4-ylcarbonyl)-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-hydroxypyrid-3-ylmethyl)piperidine;  
 and

4-{*N*-[7-(3-(*S*)-1-Carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-[4-(2-fluoroethoxy)pyrid-3-ylmethyl]piperidine;

4-{*N*-[7-(3-(*R*)-1-Carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine; and

4-{*N*-[7-(3-(*R*)-1-Carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-ethoxypyrid-3-ylmethyl)piperidine;

or a pharmaceutically-acceptable salt or solvate or stereoisomer thereof.

31. (Original) 4-{*N*-[7-(3-(*S*)-1-Carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hep-1-yl]-*N*-(isopropyl)amino}-1-(4-methoxypyrid-3-ylmethyl)piperidine; or a pharmaceutically-acceptable salt or solvate thereof.

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32. (Original) 4-{*N*-[7-(3-(*S*)-1-Carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(isopropyl)amino}-1-(4-ethoxypyrid-3-ylmethyl)piperidine; or a pharmaceutically-acceptable salt or solvate thereof.

33. (Original) 4-{*N*-[7-(3-(*S*)-1-Carbamoyl-1,1-diphenylmethyl)pyrrolidin-1-yl]hept-1-yl]-*N*-(isopropyl)amino}-1-(4-isopropoxypyrid-3-ylmethyl)piperidine; or a pharmaceutically-acceptable salt or solvate thereof.

34-38. Canceled.

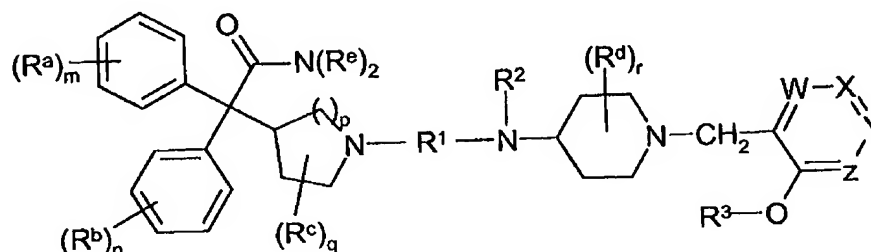
39. (Currently Amended) A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and a therapeutically effective amount of a compound of any one of ~~Claims 1 to 33~~ Claims 1-33.

40-43. Canceled.

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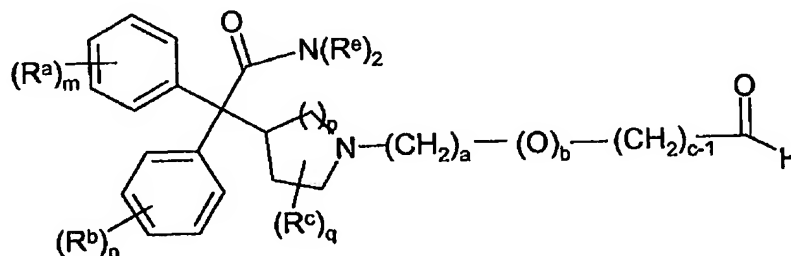
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44. (Original) A process for preparing a compound of formula I:



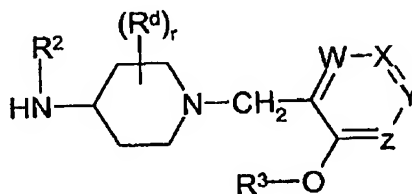
I

wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^a$ ,  $R^b$ ,  $R^c$ ,  $R^d$ ,  $m$ ,  $n$ ,  $p$ ,  $q$ ,  $r$ ,  $W$ ,  $X$ ,  $Y$  and  $Z$  are as defined in Claim 1; or a pharmaceutically-acceptable salt or solvate or stereoisomer thereof; the process comprising reacting a compound of formula Va:



Va

or a salt or stereoisomer or protected derivative thereof; with a compound of formula VIII:



VIII

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or a salt or protected derivative thereof; and a reducing agent to provide a compound of formula I, or a pharmaceutically-acceptable salt or solvate or stereoisomer thereof.

45. (Original) The process of Claim 44, wherein the process further comprises the step of forming a pharmaceutically-acceptable salt of the compound of formula I.

46. Canceled.

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